

THE BOSTON
MEDICAL AND SURGICAL JOURNAL.

VOL. II.]

TUESDAY, FEBRUARY 24, 1829.

[No. 2.]

I.

*Facts relating to the Influence of
decomposing Animal Matter in
producing Fevers.*

Communicated for the Boston Medical and
Surgical Journal.

(Continued from p. 7.)

In the "Memoirs of the Society of Medicine" in Paris, and the "Annals of Chemistry," we find recorded some remarkable facts relating to the non-pestilential influence of decomposing animal substances. These having been introduced by Dr. Bancroft in his treatise on yellow fever, we shall avail ourselves of his translation, together with some remarks which he has connected with it.

"Many writers of celebrity have thought that no effluvia were so infectious and pernicious to mankind as those which issued from putrefying human bodies; and although a century and a half has elapsed since Diemerbroeck attempted to convince physicians that, at least, such effluvia could not produce the plague, yet the old opinion has kept its ground; and it is still believed, that, in their milder state, they may cause putrid fevers, and, in their more concentrated state, a true pestilence. There are facts, however, on a large scale, which com-

pletely decide this question;—two of these deserve particular notice.

"The first relates to the exhumations made in the church-yard of St. Eloi, at Dunkirk, in the year 1793; and the other to those made three years afterwards, in the church-yard of the Saints Innocens, at Paris. As the undertakings and results were similar in both instances, I shall, to avoid repetition, here describe only the latter, which I have preferred, because the corpses here taken up were much more numerous than at Dunkirk, and probably constituted the greatest mass of putrefying animal matter of which we have any accurate information.

"The church-yard of the Saints Innocens, at Paris, situated in one of the most populous quarters of the city, had been made the depository of so many bodies, that, although its area enclosed more than 1700 square toises, or near two acres, yet the soil had been raised by them eight or ten feet higher than the level of the adjoining streets; and upon the most moderate calculation, considerably more than six hundred thousand bodies had been buried in it, during the last six centuries; previous to which date, it was

already a very ancient burial ground.* Numerous complaints having been made concerning the offensive smells which arose from this spot, and sometimes penetrated into the adjoining houses, and the public mind having been greatly alarmed, it was at last determined to forbid all future burials there, and to remove so much of the superstratum as would reduce the surface to the level of the streets. This work was undertaken in 1786, under the superintendence of M. Thouret, a physician of eminence in Paris, and in two years he accomplished the removal of that superstratum, almost the whole of which was impregnated, or infected, as M. Thouret styles it, with the remains of carcasses, and of quantities of filth and ordure, thrown upon it from the adjoining houses.

“ ‘The exhumations,’ says this gentleman, (in the narrative of them, which he published in the *Journal de Physique*, for 1791,

page 258,) ‘were principally executed during the winter, but a considerable part of them was also carried on during the *greatest heats of summer*. They were begun with every possible care, and with every known precaution; but they were afterwards continued, almost for the *whole* period of the operations, without employing, it may be said, any precaution whatever; yet no danger manifested itself in the whole course of our labors,—no accident occurred to disturb the public tranquillity.’ This account is authentic,—and was read before the Royal Academy of Sciences at Paris. It is, moreover, confirmed by the report of M. Fourcroy, who was joined in this commission with M. Thouret for certain chemical objects, which report was also read at the Academy, and is printed in the sixth volume of the *Annales de Chimie*. If this result from taking up nearly twenty thousand bodies, in different stages of decomposition, be insufficient alone for my purpose, there is another almost equally conclusive in its nature and extent. It is well known that M. Berthé, Professor in the School of Medicine at Montpellier, and two of his colleagues in that University, were sent, by the government of France, into Spain, to examine, and report upon, the nature of the yellow fever, which has proved so fatal in several towns of Andalusia, in 1800. M. Berthé has published the report of the commission, of which he was a member, and in it has mentioned that, being at Seville only a few months after the epidemic had ceased, he frequently visited the burial places just without the city, in which the victims of the

* In less than thirty years, more than 90,000 corpses had been deposited here by the last grave-digger. The poorer inhabitants were buried in coffins made of very thin deal boards, and were regularly stowed as closely as possible, upon and beside each other, in large pits about thirty feet deep, and capable of receiving each from 12 to 1500 coffins. These pits were gradually filled with coffins, and then covered over with earth, about one foot in depth, and the bodies left to putrefy. But as the same space was generally wanted, in fifteen or twenty years, for other bodies, this mass of animal corruption was then dug up, and a like number of recent corpses deposited in the same pit; and this operation was successively repeated through nearly the whole extent of the church-yard, from generation to generation, until the earth itself had been so completely supersaturated with human putrefaction, as to have no longer any action, or decomposing influence, on bodies buried there.

fever had been interred; that, in these excursions, he was accompanied by the French Consul at that city, and had occasion to converse much with the guards stationed at those places, and with the grave-diggers still employed in them; and he states that, besides these, many thousands of the inhabitants of Seville also come hither, some from curiosity, and others in processions, to testify their sorrow and respect for their departed friends. In one of these grounds, south-westward of the city, ten thousand bodies had been buried; in two others, seven or eight thousand; and in that of Triana, about four thousand.

"The heats of the spring," says M. Berthé, (which, I need not observe, are considerable at Seville,) "were, at this time, beginning to be felt, and the ground of these burial places being clayey, was already cracked into wide and deep crevices, through which a fœtid odor was exhaled, the results of the decomposition which was going on among these heaps of bodies."

"Filled with alarm at the calamities which might be produced by such masses of putrefaction, M. Berthé and his colleagues represented these supposed dangers to the Spanish government; and then went to Cadiz, where they found the churches more or less filled with putrid emanations from the same causes; but as they did not discover that these supposed fomites of infection were productive of any disease, their fears concerning them seem at length to have subsided completely; for, in their reply to the President and Members of the Board of Health, who had requested a

statement of their opinion, they expressly declare their belief, that 'if the yellow fever could be reproduced by the effluvia arising from putrefying bodies, it was evident that such a misfortune must already have taken place, through the imperfect manner in which the tombs and vaults, pointed out by them, had been closed,—a defect which they had observed in the churches that were most frequented.' Thus, it appears that the putrid emanations from the bodies of many thousand persons, who had recently died of the yellow fever, did not, and therefore could not, produce that disorder."

To the preceding facts I may add another, which is related by a man whose veracity is as little to be questioned, as his exalted philanthropy,—I mean John Howard, in his work on Lazarettos, p. 25.*

"The governor, at the French hospital at Smyrna, told me, (says Mr. Howard,) that, in the last dreadful plague there, his house was rendered almost intolerable by an offensive scent, especially when he opened those windows which looked towards the great burying ground, where numbers were left, every day, unburied; but that it had no effect on the health of himself or his family. An opulent merchant, in this city," adds he, "likewise told me, that he and his family had felt the same inconvenience without any bad consequences."

If the exhalations from piles of bodies destroyed by the plague itself, and corrupting in the open air, were thus incapable of generating the contagion either of fe-

* Bancroft on yellow fever.

ver or of plague, even during the prevalence of a pestilential constitution of the atmosphere, (if any state of the atmosphere ever deserved that title,) it may, I think, be safely affirmed, that there are no circumstances under which putrid animal matter can be supposed ever to produce febrile contagion.

The following statement is extracted from a letter written to Dr. Bancroft by Mr. Lawrence, Anatomical Demonstrator at St. Bartholomew's Hospital, whose character, talents, and professional acquirements, have already, at an early part of his life, greatly and justly advanced him in the road to eminence. It was dated February 21, 1809.

"In a constant attendance at St. Bartholomew's Hospital for more than ten years, I have never seen any illness produced by the closest attention to anatomical pursuits, except such as might be expected to follow from a similar confinement and application to any other employment. When it is considered that most of the students come from the country, and that many spend much time in dissection, being employed also in writing, reading, &c. during the rest of the day, it will not be a matter of surprise that their health should occasionally suffer: but the indisposition has never appeared to derive any peculiar character from the exposure of the subject to putrid effluvia. Of course you will except from this observation, the effects which may arise from the absorption of noxious matter from wounds received in dissection. It has not appeared to me, that ill consequences of that description follow more frequently from the dissec-

tion of the most putrid, than from that of recent bodies. The following particulars will afford the most complete proofs that the exhalations from decomposing animal substance are not necessarily injurious to the human body.— John Gilmore, together with his wife and two sons, lived for ten years in a room under the anatomical buildings of St. Bartholomew's. The whole family slept, as well as spent the day, in this apartment, which received a very small quantity of light, in consequence of its single window opening against a high wall. The room was at the end of a passage, in which several tubs containing bones in a state of maceration were generally placed, and with which other divisions of the cellars communicated, containing large excavations for receiving the refuse of the anatomical rooms. The latter were not separated from the general passage by any door.

"The animal matters thrown into the receptacles just mentioned, are, I believe, converted into adipocire, and the fetor is consequently not so offensive as if they went through the putrefactive process: but the whole place was constantly filled with a close cadaverous smell, very disagreeable to any persons who went down from the fresh air. During the whole day Gilmore was employed about the dissecting room, in removing the offals, in cleaning macerated bones, in short, in an almost constant handling of the most putrid matters. He always enjoyed good health, was fat, and possessed great bodily strength. He left his situation in consequence of an apoplectic attack, and died lately, at the age of 69,

after two other similar affections. His wife survived, enjoying a good state of health. Neither of his sons appears to have suffered from any unwholesomeness of their abode. They are both hearty and strong, although they have been employed some years in attending the dissecting rooms. But the whole family left the cellar soon after the father's first attack.

"During the time that our very numerous fleet of transports lay in the bay of Aboukir, many bodies of sailors who had either died, or had been drowned, were washed upon the shore, where they remained unburied, exposed to the heat of the sun. In riding to Rosetta, it was necessary to keep along the shore. I passed eighteen or twenty corpses in this situation. They were in various states of putrefaction; but the stench from them all was offensive in the highest degree, and extended to more than one hundred yards. My curiosity led me to approach close to most of them, that I might examine the changes they had undergone. Some were swelled up to an enormous size, and the skin seemed so distended, that it appeared ready to burst. They were often of a dark brown color; some had not yet come to that state; others had passed it; and the skin having burst in several places, the air had escaped, and they had become more or less desiccated, and of a black color. Every person who had to pass from the camp to Rosetta, was obliged to come within reach of the vapors emitted by these bodies. There were orderly dragoons constantly passing, yet neither myself nor any one else, as far as I could learn, was attacked with fever in consequence of our

exposure to these vapors; and my professional situation would probably have enabled me to learn if any such consequence had followed."

Orræus Descriptio Pestis, &c. p. 47. After stating that towards the decline of the plague in Moscow, in February, 1772, the College of Health received information, "*hinc inde in domibus emortuus et infectis—cadavera clanculum inhumata vel aliter occultata sepeliri;*" and that they ordered all the houses to be searched, offered twenty roubles to informers, "*et quæ (cadavera) in locis spatiosis non sat profunde inhumata fuerunt, eorum sepulchra terra multa contegere, cætera vero nuda reperta in cœmeteria transportare;*" he says, "*hac ratione circiter mille cadavera in habitationibus ipsis, reperta fuerunt. Notabile omnino fuit neminem et vespillonibus, vel aliis in negotio hoc periculoso versantibus infectum nedom morbo aliquo corruptum fuisse, quamvis tanta ab omni infectione incolumitas vix ac ne vix quidem sperari posse videbatur.*"

In the *Edinburgh Medical and Surgical Journal* of October 1, 1810, may be seen an account, given by Dr. Chisholm, of a manufactory (of which I had some knowledge from the time of its first establishment) at Conham, near Bristol, destined for the conversion of animal flesh into a substance resembling spermaceti, by cutting up dead horses, asses, dogs, &c. and putting their muscular parts into boxes with holes for the admission of water, and afterwards placing them in pits filled with water, while the entrails and useless parts of many hundreds of carcasses were left

to putrefy on the surface of the ground. And it appears from Dr. Chisholm's statement, as well as from other information which was given to me on the subject, that though the effluvia of these putrefying animal matters were highly offensive to the overseer of this manufactory, and to the workmen employed under him, as well as to others within their reach, no injury was done by them to the health of any person, during the two years in which these operations were continued.

In regard to the morbid effects supposed to result from the putrefaction of fish, they appear, so far at least as regards fever, to have had no existence, but what was derived from the indiscriminating credulity of such writers as Forestus. That a large whale was formerly cast ashore, and suffered to putrefy on the sea coast, near Egmont, in North Holland, (a place nearly surrounded by marshy or low grounds,) I am willing to believe; but that the fever which is said by Forestus (tom. 1, lib. 6) to have followed that event, was produced by the whale rather than by marsh miasms, I cannot believe; because whales have not been found capable of producing such effects in later times, and because fevers from marsh effluvia constantly fall under our observation.

About the year 1788, a whale was stranded on the coast of France, near Havre de Grace, and M. Baussard, in an account of it, published in Rozier's *Journal de Physique*, for March, 1789, says, "Pendant que j'étois occupé a dissequer ce gros animal, une lueur phosphorique exhaloit de l'interieur de son corps, et une odeur tres fetide de la tête."

"Les exhalaisons m'ont occasioné des inflammations aux narines et a la gorge et certaines parties huileuses de la tête m'ont mis les mains dans un etat pitoyable."

No mention is, however, made by M. Baussard of any febrile affection, occasioned either to himself or to any other person, by the putrefaction of this fish; and that no such affections do, in fact, result from that cause, was farther proved by the information which I obtained on the 2d of October, 1807, at the Greenland Dock, where the late proprietor, Mr. Ritchie, (who had just sold this property to Sir Charles Price and his associates for 25,000*l.*.) informed me that for a considerable time all the Greenland ships had been used to boil their blubber at this place, for which purpose, five coppers, with proper coolers, &c., had been erected. Mr. Ritchie had lived more than fifty years in the neighborhood of this dock, was well acquainted with the boiling process, and assured me, repeatedly, that though the blubber is often in a very offensive state, emitting a highly putrid smell, neither himself nor his people, nor the crews of the Greenland ships, who perform the whole boiling, &c., nor the neighbors, have ever, to his knowledge, suffered in their healths from that operation; that his people and himself have always been healthy, and that he believes no crews are more healthy than those of the Greenland ships. This account was confirmed by the master of a Greenland ship then in the dock, who said he had been employed in the whale fishery for the last twenty-two years, excepting one year, and had been used to boil down the blubber for sixteen or

eighteen years of that time. He said besides, that the Greenland ships, on their return home, often smell very offensively to strangers, though to themselves the stench is imperceptible; that the casks in which they carry out their water, are those in which they have brought home the blubber; and that the water generally is found very offensive for some hours after the bung is taken out; in which state, however, the men are accustomed to drink it; and that, notwithstanding all this, he does not conceive that any men are more healthy than the crews of those ships; that the stench from the blubber is universally admitted to be greatest when it is boiling; and that these effluvia, so far from being at all unhealthy, are, on the contrary, reckoned so wholesome, that it is very common for sick persons to come to the copper, as soon as they rise from their beds, and to hold their heads over the steam as close as they can.

Mr. Ritchie informed me, that what remained of the blubber, after the boiling was finished, was now very commonly bought for agricultural purposes; that it was usually taken away by the purchasers just after the boiling, and was allowed to lie by a certain time, till it was in a proper state to be used as manure; when it was laid upon the ground, and found to be very useful.

The use of fish as manure is no new invention. Herrings, pilchards, and mackerel, have been long employed for this purpose in those parts of Great Britain where they are caught in the greatest abundance, and so are the various species of mollusca. In some parts of Cambridgeshire, &c., a

small fresh water fish, called stickle-back, (*gastrophilus aculeatus*;) becomes so plentiful, that, leaving their native ditches, they form vast shoals in the rivers, and being caught in nets or baskets, are strewed over the ground, in the proportion of twenty bushels per acre. No morbid effect, however, so far as I can discover, has ever been known to result from the putrefaction of fish, or other animal matters employed in this way, though fevers ought to have resulted from it, if producible by the natural decomposition of animal substances.

Putrid human excrement seems equally incapable of producing fever. A night-man, who had been extensively employed for thirty years in this metropolis, assured me, that though his laborers frequently fell into asphyxia, or "died off," as he called it, they had always recovered on being brought into the open air; that no fever had ever ensued from such accidents, nor, as he believed, from this kind of occupation; that sometimes from intemperance, and getting cold, they had feverish indispositions, but not more so than other laborers; and that, when steady and sober, he thought them remarkably healthy; that their eyes were sometimes affected, so as to produce temporary blindness, from which, however, they commonly recovered in a few days; and that this, with asphyxia, were the only disorders to which he considered them particularly liable from the nature of their occupation.

The following extract from a writer on Egypt tends to show that the plague is not produced by animal decomposition:—"There are several writers who sup-

pose the plague proceeds from the canal or calige, which passes through Grand Cairo. It is very true that the remaining matter is horribly corrupted, by the filth thrown in from the adjoining houses, and the great number of necessities that empty themselves into it, which occasions a most abominable stench for several months of the year, tarnishing in a short time even gold and silver in the houses near it. But in this case also, a corrupt air is naturally commonly supposed to be the cause, which will likewise not agree with the above mentioned observation. At the same time another strong argument may be brought against it, which is founded upon a very long experience, viz.: All the houses of the European merchants in Grand Cairo have, for more than two hundred years, been situated close to this canal or very near it; and neither have these, nor any of the other inhabitants, who live in the same situation, been more affected with diseases than the rest. This is a truth, which all the European physicians, who have for some time resided at Grand Cairo, will confirm."—*John Antes' Observations on Egypt, page 38.*

II.

Strictures on the Diseases of Young Children.—From Lectures delivered at Guy's Hospital,

By Dr. JAMES BLUNDELL.

Medical Diseases of Young Infants.

—To investigate and treat those diseases of young infants which fall under the care of the physician, is no agreeable task, for at this early age we are often surrounded with more feeling than

judgment; and as the child cannot speak for itself, its complaints are sometimes involved in much obscurity. In fact, we are often compelled to investigate the complaints of young children much in the same manner as those of animals, by looking to certain external signs; and of these, the following are the principal deserving your attention:—

The diseases of young children frequently exhibit marks upon the skin; the surface of the body, therefore, ought always to be inspected; and, in doing this, you may, at the same time, observe the degree of plumpness or emaciation, as well as the bulk of the abdomen, which is always large in infants. The body may be cooler than natural, and is frequently warmer; this heat showing itself in the hands, feet, and mouth, and head more especially; do not, therefore, neglect to inquire into the temperature of the child. Croup, whooping cough, measles, gastric cough, thoracic inflammations, and so on, of course affect the breathing, and to the action of the lungs and thorax, therefore, our attention should, in all cases, be directed. In convulsive affections, the scalp is hot, the fontanels beat more forcibly than the radial artery, even the hair sometimes grows very fast, and the head sweats. Inquire into all these points. In chylopoietic and cerebral affections, so common in children, the number and character of the stools change, and vomiting is occasionally produced. Infantile vomiting is of less importance than the vomiting of the adult; and, it should be observed, that the rejection of coagulated milk, is no proof of gastric disease; for coagulation is

one of the first effects produced by the healthy digestive juice. The actions of young children ought not to pass unnoticed. They raise the knees to the abdomen, when affected with colic; put the fingers in the mouth, when teething; pick the nostrils (when older) in worms or analogous affections; and when disposed to cephalic diseases, they may roll the head on the pillow, or frequently apply the hand to it. In young children, I pay but little attention to the pulse; even in health, it is nearly twice as frequent as in the adult; at birth, about 140; at the end of the first year, 120; of the second, 110; of the third and fourth years, about 96; in the seventh, about 86; in manhood, various, from 70 to 80 in the minute; and, in old age, sometimes as low as 60. When investigating infantile diseases, do not lose sight of the gums.

In young infants, opiates must be given with great caution; for though some, under convulsive and bowel affections, bear anodynes very well, there is always a fear of an overdose; from half a drachm to a drachm of good syrup of poppies, (not treacle and laudanum,) or two drops of the tincture of opium, are a full daily quantity for an infant within the month. Negligent assistants ought not to be employed to measure out the preparation; infants have sometimes been killed by overdoses; and still more frequently they have become drowsy, so as to neglect the breast and food for hours together, to their great detriment in bowel complaints. It is to be regretted that poppy syrup, so useful in children, varies so much in its strength and quality.

Leeches sometimes draw from

young children more than intended; and one leech may be too much when a child is much reduced. Dr. O'Berne, formerly of Chillington in Devon, asserts that, like the horse of Baron Munchausen, if the hinder end of the leech be cut away, it will draw more copiously, being a sort of living pump, which gives off at one extremity what it absorbs at the other. When leeches are placed over bony surfaces, the bleeding, (if necessary,) may be more easily restrained by pressure; and the hand, sternum, and cranium, are convenient places for their application. Besides compression and lunar caustic, a useful help for stopping the bleeding from the leech-orifices, is a small portion of clean sponge, easily passed down by means of a probe into the cellular web under the skin, where the bleeding vessels are situated. To Mr. Franks, one of my pupils, I was indebted for this fact. Infants are best bled from the external jugular vein, particularly in head affections; and when the blood can be drawn in this manner, we know precisely the measure. What quantities may be safely drawn at once, must be determined by circumstances; but the following tabular statement of quantities of blood which I have taken away myself, at different ages, may, perhaps, be of some use to you:—

From a child of	oz.	oz. aver.
2 months old, from 1 to	$1\frac{1}{3}$	
4 months . . .	$1\frac{1}{2}$ to 2	
8 months . . .	2 to 3	
12 months . . .	3 to 4	
18 months . . .	4 to 5	
3 years . . .	8 to 10	
6 years . . .	10 to 12	

For some of the facts on which this table is grounded, I am in-

debted to my friend, Mr. Edwards.

Beware of blistering infants, especially with eruptive diseases; if a child is under three years of age, you ought not to leave a blister on the skin for more than three hours together, without well considering what you are about. After removal of the blister, vesication will, I believe, generally ensue. Blisters, large and acrid, and of long application, are, it is to be feared, very apt to produce sloughing and death. Dreadful cases of this kind have now and then been brought under my notice.

The infantile diseases, like those of the adult, arise from causes exceedingly various; but, in most cases, irritability, acid acrimony, and errors in diet, have much to do in producing or modifying them. Children sometimes become gross and ailing because they are supplied too copiously with breast-milk; but far more frequently they suffer, because for human milk other food is substituted; marasmus and diarrhœa being the consequence. Children there are, and many, which thrive wonderfully upon pap; but some, and not a few, after two or three weeks' trial more especially, are found unfit for artificial food, and to them other food than the breast-milk is poison. Arsenic itself, though of more rapid operation, can scarcely produce more terrible effects than spoon-meat in such cases; excoriations of the bowels,—tormina,—diarrhœa,—death, not to mention dissolution from mere wasting. The rapidity with which children are brought back from death's door, under the use of the breast-milk, is, in some cases, very striking, and is a fur-

ther proof of its congeniality. So important is this aliment in these constitutions, that the milk should be drawn from a woman's breast, and given with the spoon or bottle, if the infant be too weak to suck. Within the first one or two months especially, no infant ought wantonly to be put upon spoon-meat. When there is purging, wasting, or cephalic affection, our first inquiry should always be, "What is the diet of this child?" If there is a wet-nurse, examine the evacuations, for when the breast is deficient, hirelings will sometimes clandestinely administer other food than the milk, nor can they be brought to confess it. All this is very shameful, no doubt. The nurse ought to be immaculate; or if otherwise, she ought to accuse herself; only look at the excellent examples which she sees every week-day, and the orthodox and edifying advice which she receives every Sunday. Pity it is that our intimate acquaintance and bosom counsellor should be a great rogue; but so thou art, poor human nature! Ah! that *pomum adami*, we may always feel it in the throat!

I can hardly acquiesce in the opinion of those who maintain, that the evacuations of infants are naturally ascendent; and certainly in health, the marks of acidity are at most very faint. Infantile evacuations, when natural, have much of the odor of new milk, and are of bright yellow tint. In some cases, however, these discharges become as sour as vinegar, and as green as this cloth, especially if breast-milk be denied; and cephalic or bowel-disease may be the result or the concomitant; it is always proper, therefore, in these affections, to

examine the evacuations generally, and more especially their acidity, giving antacids if necessary,—chalk if you wish to shut, magnesia if you wish to open, ammoniacal preparations if you wish to stimulate the older children, and carbonate of soda if you desire a remedy of powerful antacid operation.

“Varium et mutabile semper”—“pleased with a feather, tickled with a straw”—“genus irritabile vatum.” There is a great similarity between the nervous habits of women and children, and poets; and in all, much, and frequent, and various commotion is produced by small causes,—words, and looks, and accents, and a thousand other baubles; children, therefore, and those resembling them in nerves, become miserably obnoxious to nervous diseases. The proportion of the nervous system to the rest of the body is greater in the infant than in the adult. The cerebral vessels of the infant are much more prone to increased action than those of the healthy man; there appears, in earlier life, to subsist in the cerebral vessels, something of that irritability which is afterwards found in the mammaries and the pudenda. To these two causes, joined with a greater liveliness of the cerebral structure, the nervous temperament may, perhaps, be attributed; and in all cephalic and bowel diseases, therefore, great attention should be paid to the head, to its refrigeration, I mean, and the prevention or relief of the increased action of the vessels. Hence vegetable diet, leeching from the temples, bleeding from the jugular vein, evaporating lotions, and la douche; nor must anodynes be

neglected, nor the removal of irritants, particularly in the gums of older children.

The *strophulus intertinctus* is well represented in Bateman's plates, and is so common and gentle that it excites but little attention; cutaneous patches, of a red color, of an area varying between that of a split pea and a silver penny, constitute its principal character; in a few days the disease always ceases spontaneously. Do not confound it with measles. As there are no catarrhal symptoms nor febrile, and as the eruptions differ, the two affections are easily distinguished: look at Bateman's plate.—Nurses call the disease the red-gum. In the severer varieties there is a minute articular elevation in the centre of the red patch.

Cullen treats of the *icterus neophytorum* as if it were a very formidable disease; and cases with fatal organic disease of the liver may, perhaps, now and then occur. In infants, however, jaundice is never scarcely a dangerous disease, and it is of very frequent occurrence. Surely Haller is wrong in supposing that jaundice is produced in the infant by a clot of milk closing the D. communis choledochus; for when the skin is yellow, often the bile from the bowels is very abundant. The real cause of the icterus seems to be a redundancy of the bile under which a gorge and consequent absorption and reflux, are both of them produced in the same manner, as if obstruction existed in the passages. In a few days the yellowness vanishes: a tea-spoonful of castor oil may be given.

Flatulent colic is common in infants, especially if they are being poisoned by spoon-meat. Give

the breast-milk; change the nurse if the milk disagree. Dillseed water, and friction of the abdomen, are good carminatives. Cantoando rumpitur anguis. Nurses fancy that a lullaby is of use on these occasions; it may soothe the nerves, and is not, perhaps, altogether without its efficacy. A fit of anger, or some other nervous commotion in the nurse may, perhaps, produce this disease; it alters the quality of the milk.

Hundreds of children are yearly carried off by *cerebral affections*, *convulsions*, *hydrocephalus*, or a mixture of the two. In some infants the convulsions become chronic, but far more frequently they are acute, of a few days or a few hours' standing. During the fit, the child is insensible; dragged about by spasms, with fixing, or staring, or partial closure of the eyes, and distortion of the features, which darken, and assume an ashy tint. The fontanel often throbs, and the scalp may be hot. There is evident analogy between these infant fits, and those of puerperal women. A single paroxysm may destroy, but more generally not so. When the child, in slumbering, is twitched gently, and smiles, and half discloses the eyes, and looks very charming—with rosy cheeks and brightened eyeballs, and a mind more active than ordinary, convulsions may be apprehended. These smaller symptoms are called inward fits. Our predecessors, besotted with superstition, always prone to ascribe nervous affections to demoniacal agencies, took it into their heads, that infants, when dosing, smiling convulsively, and starting, were holding converse with some airy being, charmed with their tender graces, and that the con-

vulsions which followed were occasioned by a desperate struggle to escape from his grasp. This explained why children, the most forward and beautiful, as before observed, are most liable to this disease. There is a very pretty catch, called the Erl King, which turns entirely on this piece of foolery. Evening is often the apparent cause of the cephalic affections in children, and to this, as the song runs, the infant is exposed. The reign of imagination is likely to cease, when that of knowledge is established, and then—the dull realities of life and feelings, like those of five-and-forty. The real cause of the beauty, the brilliancy, the precocity, the dissolution of the child, is the press of the blood towards the brain, and perhaps of the teeth towards the gums. This gives glow to the cheek and splendor to the eye, and activity to the intellect, and death to the mother's hopes. Among the lower classes of the South of Europe, if I am rightly informed, nothing alarms the mother more than the commendation of her infant's beauty. The dread of Nemesis seems still to prevail even in Christian Italy, and such praise is supposed, in some unknown manner, to exert malignant influence. I have myself more than once been told with tears, that just before the fit some friend had been remarking, "how pretty the child looks;" but enough of this. Tumors, effused water, effused blood, and accumulation, and hurried circulation in the cerebral vessels, appear to be, in most instances, among the more immediate causes of this disease; and of these causes, congestion and aqueous effusion are the most

frequent. Blood is, I believe, rarely poured out, and tumors are uncommon. All these causes, *perhaps*, operate by pressure, but I doubt. Full diet, damp air, irritation in the primæ viæ, dentition, hooping cough, measles, and other acute diseases, are the more common remoter causes, and the convulsive and hydrocephalic affections may arise without any very obvious excitement. The evacuations are generally knotty, mucous, serous, and green. Scrofulous constitutions appear to be especially prone to the disease.

(To be continued.)

III.

On the Secale Cornutum.

By GIDEON MANTELL, Esq. F.R.S.

To the Editors of the London Medical Gazette.

GENTLEMEN,

Although the publications of Dr. Neale and Mr. Mitchell have directed the attention of the profession to the use of ergot of rye, in protracted parturition, yet as this remedy, like every new one, will have many prejudices to encounter before it is allowed a place in the materia medica of the accoucheur, I beg to lay before your readers a brief statement of my experience of its effects, in the hope of inducing other practitioners to give it a fair and immediate trial.

During the last three months I have administered the ergot either in powder or in the form of tincture in about thirty cases, and the following is the result of my observations.

1. The secale cornutum has, in no instance, produced any alarming symptom; the powder

was a most effectual preparation in doses of from ten to thirty grains. The tincture was best adapted for a delicate stomach.

2. It never failed to excite uterine action, and, with the exception of two cases, expedite delivery. In twenty-three cases strong expulsive pains were induced in from ten to twenty minutes after its exhibition, and the labors terminated favorably in a period varying from a few minutes to an hour and a half. All these were protracted labors, in which the pains were either very slight and ineffectual, or had entirely ceased when the ergot was given; so that no doubt could exist of the efficacy of the remedy.

3. In plethoric habits, when the pains were frequent but unavailing, venesection was found necessary before the administration of the ergot.

4. In a case where much constitutional irritability prevailed, the medicine occasioned the most excruciating pains, apparently without expediting delivery; in other cases of this kind, a large dose of laudanum was administered, and when the pains had entirely subsided the ergot was given, and produced the happiest effects.

5. In abortions where the placenta was retained, the ergot checked the hæmorrhage and occasioned the expulsion of the after-birth: in these cases from ten to fifteen grains of the powder were given, and repeated according to the urgency of the symptoms.

In short, gentlemen, limited as my experience has been of the effects of the ergot, I cannot hesitate to express my conviction that this medicine possesses all

the properties that have been ascribed to it by its warmest advocates, and will be found, if administered with due precaution, one of the most valuable agents the accoucheur can possess.

Having some time since observed, in a contemporary medical journal, remarks from several correspondents on the most effectual means of suppressing uterine hæmorrhage after delivery, I would beg to offer to the inexperienced accoucheur a few observations on this important subject. In cases of uterine hæmorrhage the usual practice of removing the placenta with one hand, while firm pressure is made on the abdomen with the other, and the uterus grasped, as it were, till it contracts upon, and expels the hand introduced, the immediate application of a cloth, or bandage, round the body, and, when required, the free application of napkins, wet with cold water and vinegar, have, with but two exceptions, been the only means I have found necessary to employ in upwards of two thousand cases. In the instances alluded to, passive hæmorrhage continuing after the removal of the placenta, the vagina was plugged with pieces of soft napkins, and both the patients recovered. Nothing has appeared to me to be so effectual in the prevention of hæmorrhage and syncope as the simple expedient of having, at the commencement of labor, a cloth, or napkin, pinned or tied round the abdomen, so as to afford moderate support. *This should be tightened when the child is born, and firmly secured so soon as the placenta is expelled:* and I would strongly recommend the medical attendant to apply the bandage himself, and not leave it to the nurse. The practitioner

has now a most powerful remedy in the secale cornutum: whenever hæmorrhage is threatened after the removal of the placenta, a moderate dose should be given;—under any circumstances it can do no harm.

IV.

SELECTIONS FROM FOREIGN JOURNALS.

Pathology of Dyspepsia.

1. WE have reason to believe that the muscular action of the stomach may be deficient, so that the alimentary matters remaining in it too long, are imperfectly changed, and pass into chemical decompositions.

2. There may be a deficiency of the intestinal action, interfering with the second stage of digestion, and giving rise to imperfect chylicification.

3. The fluids may be deficient in quantity, or morbid in quality, so as to derange the process in various ways. We see in certain cases a fluid brought up in large quantities, in a morbidly tenacious state, quite different from the healthy appearance of the fluids of the stomach; and we have reason to believe that similar changes may take place in the other fluids concerned in digestion.

If the mucous membrane be morbidly irritable, the muscular coat will probably be too easily excited to action. If this occur in the stomach, the articles will not be allowed to remain a sufficient time for digestion; but after producing uneasiness, they will either be rejected by vomiting, or propelled in a half-digested state into the intestine. If the irritability occur in the intestine, the articles may undergo their proper change in the stomach, but will be propelled too rapidly through the intestinal canal, without time being afforded for the complete process of healthy chylicification.

The following rules, although containing nothing of absolute novelty, are important:—

I. It appears that the muscular action of the stomach is both more vigorous and more extensive when its contents are in small quantity than when it is much distended; and if we suppose the fluids of the stomach to be secreted in nearly a uniform quantity, their action must also be greatly regulated by the quantity of matter which they have to act upon; hence the indispensable importance in dyspeptic cases of restricting the food to such a quantity as the stomach shall be found capable of digesting in a healthy manner. This is unquestionably the first and great principle in the treatment of indigestion; and without invariable attention to it, no other means will be of the smallest avail.

II. It appears that various articles of food are of various degrees of solubility in the stomach. When, therefore, digestion is apt to be easily impaired, it will be of the greatest importance not only to avoid articles which are of difficult solution, but also to avoid mixing various articles which are of different degrees of solubility. Attention to this rule will probably favor in a great measure the process of chymification going on in a regular and healthy manner, by avoiding a state in which the solution of one article may be more advanced than that of another. The articles of most easy solution appear to be solid animal food, and white fish, both plainly dressed; vegetables are less soluble; and among the articles of more difficult solution, appear to be fatty substances, tendinous and cartilaginous parts, concrete albumen, the epidermis of fruits, and, according to some, mucilaginous and sweet vegetables. From some experiments of Sir Astley Cooper, it is supposed that the solubility of animal food is in the order of pork, mutton, veal, and beef. Articles in small pieces are much more speedily dissolved than in larger, the action being on the surface of the portion; and hence the importance of careful mastication.

III. If digestion go on more slowly and more imperfectly than in the healthy state, another important rule will be, not to take in additional food until full time has been given for the solution of the former. If the healthy period be four or five hours, the dyspeptic should probably allow six or seven. The injudicious infringement of this rule by a breakfast, a meat lunch, and a dinner, all within the space of seven or eight hours, is too obvious to require a single observation.—*London Medical Gazette.*

Flora Belgica.—The first volume of a work, under this title, has just been published, by two excellent botanists, MM. Le Jeune and Courtois, containing 597 species, arranged according to the Linnæan system, and extending, inclusively, to Pentandria polygynia.

TO CORRESPONDENTS.

Dr. Brewster's paper on *Abortion* is received, and will appear in the next number.—Ed.

WEEKLY REPORT OF DEATHS IN BOSTON,

Ending February 13, at noon.

Feb. 6.	John Bennet,	58 yrs.
7.	Eliza O'Donnell,	6
	Lydia Ellis,	73
	Sarah Carter,	48
	Azariah Dickinson,	77
	Mary E. Barber,	2 1-2
8.	Hannah Foot,	76
	Abel Billings,	50
	Theodore A. Simmons,	10 mo.
	Samuel Winslow,	6 w.
9.	John Hallam,	38 yrs.
10.	Hannah Lambert,	80
	Rebecca Dean,	70
	George M. Frost,	2 1-2
	Thomas Reed,	39
	Franklin Hastings,	2 1-2
	Kendall Pearson,	27
11.	Albert Douglas,	24
	Harriet Prescott,	24
12.	Joseph T. Edmands,	13
13.	John Hill,	2

Apoplexy, 1—convulsions, 1—consumption, 4—dropsy on the brain, 4—intemperance, 1— inflammation on the lungs, 1—jaundice, 1— old age, 4—pleurisy, 1—suffocation, 1—unknown, 2. Males, 13—females, 8. Stillborn, 2. Total, 23.

ADVERTISEMENTS.

CURVED SPINE.

DR. GRIGG informs the Profession that he has lately made a new and important improvement in machines for Diseases of the Spine. From his success in its application, and from the unqualified approbation it has received from the most distinguished Surgeons and Physicians in Boston, New York and Philadelphia, he confidently presents it to public notice.

The benefit attendant on its use convinces him that most of the cases of deformity dependent on curvature of the spine, may be perfectly cured, and many of those which have been considered incurable may by this apparatus be very much relieved. Feb. 3.

Boston, 30 Atkinson Street.

MEDICAL SCHOOL OF MAINE
AT BOWDOIN COLLEGE.

THE Annual Course of Lectures at the Medical School of Maine, will commence at Brunswick on Tuesday, February 24, 1829, and will continue three months.

Theory and Practice of Physic, by JOHN DELAMATTER, M.D., Prof. of Surgery Western Col. Phys. and Surg. N. York.
Chemistry and Materia Medica, PARKER CLEVELAND, M.D.
Anatomy and Surgery, JOHN D. WELLS, M.D.
Obstetrics, JAMES McKEAN, M.D.

Degrees are conferred, after the usual examination, at the close of the Lectures, and at the annual commencement in September.

The Library and Cabinet have received considerable additions, and the Lecture-Rooms have been enlarged, since the last course of Lectures. 4t.

Brunswick, Jan. 1, 1829.

LECTURES ON ANATOMY.

TICKETS of admission to Dr. J. V. C. SMITH'S Evening Lectures on Anatomy, may be obtained at BREWER & BROTHERS, Apothecaries, Washington Street. Feb. 17.

EUROPEAN LEECHES.

RICHARD A. NEWELL, Druggist, 91, Summer Street, has on hand a small lot of EUROPEAN LEECHES, in excellent order, and of very large size, which he will sell at a fair price.

N. B. Leeches applied as usual, or sent to any part of the city. 4t.
Feb. 24.

SURGICAL INSTRUMENTS.

DAVID & JOHN HENSHAW & Co. No. 33, India Street, near the head of Central Wharf, have for sale a very extensive assortment of Surgical Instruments. Gentlemen wishing to purchase will find it to their advantage to call and examine them. Oct. 14.

CASEY'S APPARATUS FOR THE
CURE OF DISTORTED SPINE.

THE Proprietor of the Dormant Balance for the cure of Distorted Spine, gives notice, that he has established an agency in this city, for the convenience of those who may wish to avail themselves of this invention. Physicians having under their care the subjects of this disease, or patients themselves, may have an opportunity of inspecting the apparatus, and examining the testimonials of its efficacy, at Mr. Charles White's, corner of Winter Street. It is recommended, however, that all patients availing themselves of this invention, should do it by the advice, and under the superintendence, of their own physicians, as it is only by medical opinion that the proper subjects of the machine can be determined, or the other proper measures to be made use of in conjunction with it, can be pointed out. The Proprietor expressly disclaims the idea that a cure is to be effected, in any case, by mechanical means alone. This machine has received the approbation of many of the most eminent medical men in this city and New-York. Upon application to the agent, references will be given, and written testimonials exhibited.

All letters, post-paid, addressed to J. Lincoln, No. 27, Fayette Street, will be attended to.

Boston, Feb. 6, 1829.

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